

NEW SPECIES AND GENERA OF NORTH AMERICAN  
LEPIDOPTERA.

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*Family Noctuidæ.**Heliothis ætheria*, sp. nov.

Head and thorax clothed with olivaceous hairs; primaries dark olive green, in most cases entirely suffused with rich purplish as far as the subterminal line; a blue spot on costa near base, often extending along costa to t. a. line; this latter pale blue, rather broad, strongly and evenly convex; t. p. line narrower, slightly defined by blue, especially on costal and inner margins, perpendicular to costa and well beyond reniform to a point opposite base of same, then strongly incurved to below reniform and again straight to inner margin; median area largely filled with pale yellowish, leaving a narrow costal border and a larger patch on inner margin of the ground colour, and containing a large dark quadrate reniform more or less scaled with purplish, the upper portion of which tends to suffuse with costal border; s. t. line marked by the difference in shade between the purplish subterminal area and the narrow olive terminal portion, slightly waved, on the whole parallel to outer margin; fringes concolorous. Secondaries black, with an irregular pale yellow median band not reaching inner margin, and much constricted in central portion, or even broken into two spots; fringes whitish. Beneath, primaries black, with a broad, sharply defined pale yellow median band containing a large black discal spot corresponding to reniform, terminal area at costa suffused with whitish; secondaries as above, but costal area pale yellowish and median band broader, entirely enclosing black discal spot; costal half of terminal area suffused with whitish; fringes pale, darker at apex of primaries. Expanse, 25 mm.

Habitat: Redington, Ariz, 10 ♂s, 14 ♀s. Types, collection Barnes.

The species is closely related to *sueta* Grt., which, however, lacks the blue shading of the Arizona form; the ground colour is quite variable, at times all traces of the pink suffusion being lost.

*Schinia velutina*, sp. nov.

Head, thorax, abdomen and wings white, very slightly suffused with a pale ochreous. At first glance apparently immaculate, by holding in certain lights the maculation of primaries is distinctly visible as satiny white lines; t. a. line strongly outwardly oblique to just below cubital

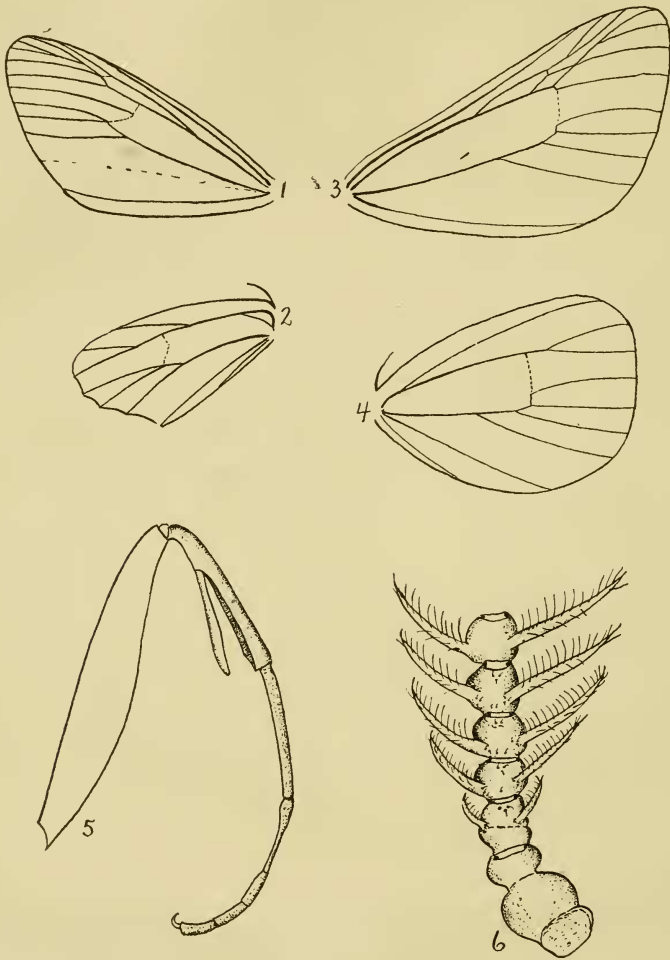


FIG. 1.—Generic features of *Grossbeckia* and *Friesia*.

1. Venation of fore wing of *Grossbeckia semimaculata*.
2. " of hind wing of " "
3. " of fore wing of *Friesia anormalis*.
4. " of hind wing of " "
5. Fore leg of *Friesia anormalis*.
6. Basal portions of antennae of *Friesia anormalis* (much enlarged).

vein, then just as strongly oblique inwardly to inner margin; reniform indistinctly visible as a satiny white patch; t. p. line well excurved around reniform, thence parallel to outer margin to a point on inner margin a little more than two-thirds from base; s. t. line rather indistinct, slightly waved, approached to t. p. line on vein  $Cu_2$ . Secondaries immaculate; all fringes white. Beneath, white, with a very prominent discocellular dusky spot on primaries. Expanse, 25 mm.

Habitat: Eureka, Ut. (Spalding), 2 ♂s. Type, collection Barnes.

The fore tibiae possess one long curved claw on inner side, and a small claw with strong spine above it on outer side.

*Grotella parvipuncta*, sp. nov.

Head, thorax and primaries creamy white, latter with only faint traces of black dots, consisting of one in the median fold near base of wing, an oblique postmedian row of three parallel to outer margin, the upper just above the origin of vein 5, the second in submedian fold below vein 2, and the third on inner margin; occasionally a trace of a second dot on inner margin about two-fifths from base. Primaries smoky brown, with pale fringes, darker in ♀ than in ♂. Beneath, primaries deep smoky, with ochreous costal margin and pale fringes; secondaries whitish, at times slightly smoky, immaculate. Expanse, 23 mm.

Habitat: Ft. Wingate, N. M.; Deming, N. M., 2 ♂s, 3 ♀. Types, collection Barnes.

The species is close to *dis* Grt., which it resembles in the almost obsolete maculation; it is, however, slightly smaller, the primaries are creamy white and not chalky white as in *dis*, the secondaries are paler brown on upper side, and lack the faint median band and discal dot on under side, which is present in seven specimens of the true *dis* examined by us. It is probably confused with this species in collections, but we have recently had specimens compared with the type of *dis* in the Snow collection by Mr. F. X. Williams, and he agrees with us that the two species are distinct. Hampson's figure of *dis* probably represents that species.

*Grotella soror*, sp. nov.

Head and thorax white, abdomen ochreous brown; primaries very pale ochreous, white along inner margin; two brown spots on costa in basal third, the outer one larger and oblique, forming the commencement of a broken antemedial line, the continuation of which is formed by a perpendicular brown dash between cubital and anal veins, and a dot on inner

margin about two-fifths from base of wing; a diffuse brown spot just beyond the middle of costa and a faint dot at end of cell; a subterminal line of brown dots, very evenly outcurved to submedian fold, terminating in a straight dash, perpendicular to inner margin but not quite attaining same; a large apical brown blotch, between which and subterminal line are two small brown dashes, placed vertically, the upper resting on costa; two terminal black patches at extremity of veins 2 and 3; fringes broadly checkered with dark brown; outer margin pale. Secondaries whitish, largely suffused with smoky, and with a broad dark brown marginal band, narrowing towards anal angle; a faint discal dot and pale fringes. Beneath, primaries smoky brown, fringes checkered; secondaries as above.

Habitat: Redington, Ariz., 1 ♀. Type, collection Barnes.

Closely related to *binda* Barnes; differs in the more even subterminal line, the presence of an apical brown patch, and patches at termination of veins 2 and 3, and the fact that the brown checkering of the fringes does *not* extend backward on the terminal area of the wing itself as in *binda*; the secondaries are darker, with more distinct marginal band.

*Eriopyga dubia*, sp. nov.

Palpi with the third joint longer and less porrect than is generally the case in this genus; head and thorax gray; primaries dark gray, very suffused and slightly shiny in appearance, and with all the maculation indistinct; t. a. line black, single, inclined outwardly, lunulate, preceded by a pale shade; basal area before t. a. line largely suffused with blackish shading; t. p. line excurved around cell, then parallel to outer margin, single, black, crenulate, mostly very indistinct; orbicular a pale, oval, indistinct mark, situated near t. a. line; reniform a black shade more or less hidden by the dark median shade, which is angled slightly below same; s. t. line not recognizable; a terminal black line broken by yellow dots at termination of veins; fringes concolorous. Secondaries smoky; fringes with an ochreous basal line, followed by dark line, beyond which the fringes are lighter. Beneath smoky, with an indistinct postmedian line and discal dot to both wings. Expanse, 20-25 mm.

Habitat: Redington, Palmerlee, Ariz., 10 ♂s, 1 ♀. Types, collection Barnes.

The antennæ in both sexes are ciliate, and the species is quite delicate, more like a *Cerma* species in general appearance; the hairy eyes would preclude this association, however. Considerable variation in size exists in the specimens before us.

*Eriopyga antennata*, sp. nov.

Antennæ of ♂ very strongly bipectinate ; of ♀ slightly ciliate ; head and thorax clothed with a mixture of gray and red-brown hair and scales ; primaries deep brown or purple-brown, the distinctness of the maculation variable ; basal line slightly marked on costa ; t. a. line geminate, black, filled with a pale shade of the ground colour, inner line indistinct, slightly outwardly oblique, with an outcurve in submedian fold and another below vein 1 ; orbicular when present small, round, outlined in dark, filled with ground colour ; reniform indistinctly outlined, outer portion filled with yellow above, which is a single white dot and below it two, remainder filled with ground colour ; no trace of claviform ; t. p. line indistinct, geminate, the outer line being reduced to a series of venular dots, well exerted around cell and slightly incurved in submedian fold ; median shade very faint ; subterminal space slightly paler than rest of wings ; s. t. line pale yellow, rather broken, defined by a dark preceding shade, angled outwardly below apex of wing, incurved slightly opposite cell and in submedian fold ; a very faint black broken terminal line and an ochreous line at base of the dark fringes. Secondaries whitish, hyaline, strongly suffused with smoky in all but the basal portion ; with small discal dot. Beneath, primaries smoky, sprinkled outwardly with ochreous, with small discal dot and traces of a postmedian line on costa ; secondaries whitish, sprinkled along costa and outer margin with ochreous, a small discal dot and broken postmedian line ; a faint broken dark terminal line to both wings. Expanse, ♂ 25 mm. ; ♀ 28 mm.

Habitat : Redington, Ariz., 4 ♂ s, 3 ♀. Types, collection Barnes.

A variable species. The markings of the reniform tend to obsolence, and only to well marked specimens is the above description applicable ; sometimes the white dots are absent, in other specimens the yellow patch is greatly reduced as well, but a careful examination will usually show sufficient of the typical maculation to avoid confusion with other species. The male antennæ are more strongly pectinate than in other species we have seen.

*Eriopyga giganteoides*, sp. nov.

♀.—Palpi outwardly black-brown, a few ochreous hairs at tip of second joint ; front with a strong tuft of dark-brown hairs sprinkled with ochreous ones ; tegulæ and thorax rather lighter brown ; primaries purplish-brown, rather shiny, the basal portion of wing to t. a. line sometimes shaded considerably with blackish ; in such specimens the basal line is not visible ; in lighter forms it may be distinguished as a geminate

black mark on costa; t. a. line black, geminate, the outer line most distinct, filled with the ground colour, slightly outwardly oblique and rather evenly crenulate; orbicular and reniform obsolete; t. p. line black, geminate, crenulate, the inner line only distinct, filled with rather paler shade than the ground colour, strongly outcurved just below costa, then parallel to outer margin, forming an outward angle on anal vein; a strong black median shade, the most prominent feature of the maculation, extends obliquely outwards from costa to below position of reniform and close to t. p. line, where it is sharply angled; its course is then sinuate to middle of inner margin; s. t. line indistinct, at times almost wanting, pale, angled below apex of wing, then rather evenly sinuate and close to outer margin; a terminal series of black dots; fringes dusky, with ochreous basal line. Secondaries smoky, with incomplete dark terminal line; fringes somewhat lighter, with ochreous basal line. Beneath, primaries smoky, shaded with ochreous along costa and outer margin, with a rather rigid dark postmedian line, slightly curved at costa, a slight discal mark, and prominent terminal row of dark dots; secondaries shiny whitish, sprinkled in costal half with ochreous and black; a dark discal spot, crenulate postmedial line, indistinct towards inner margin, and terminal row of dots. Expanse, 32 mm.

Habitat: White Mts., Ariz., 3 ♀s. Type, collection Barnes.

Allied to *gigas* Sm., of which we possess co-types; differs in the much smoother and darker appearance, the narrower wings, and the lack of orbicular and reniform.

(To be continued.)

#### THE ENTOMOLOGICAL SOCIETY OF ONTARIO.

The forty-eighth annual meeting of the Entomological Society of Ontario was held at the Ontario Agricultural College, Guelph, on Thursday and Friday, Nov. 23rd and 24th. During the day meetings the chair was occupied by the president, Dr. E. M. Walker, and during the evening meeting by President Creelman, of the college.

Among those present were Messrs. H. H. Lyman and A. F. Winn, Montreal; Dr. C. Gordon Hewitt and Mr. Arthur Gibson, Ottawa; Prof. J. M. Swaine, Macdonald College, St. Anne's, P.Q.; Mr. J. D. Evans, Trenton; Dr. E. M. Walker and Mr. J. B. Williams, Toronto; President Creelman, Professors Bethune, Zavitz, Jarvis, Hutt, Howitt, Messrs. Pettit, Cæsar, McCubbin and Baker, of the staff, and a number of students of the Ontario Agricultural College and Macdonald Institute.